

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2004/001926

A. CLASSIFICATION OF SUBJECT MATTER

IPC⁷: F04D-29/66, F04D-25/16, F04D-25/08, F04D-27/00, F15D-01/02, F24F-13/08

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: F04D, F15D, F24F CPC: 103, 137, 98 USPC: 361, 415

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Canadian Patents Database
Internet (Keywords: series, fans, axial, arrangement, push-pull, guide, vanes)
Delphion, Espacenet, WEST, USPTO

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
X	US 6076739 A (LITTLEFORD, W. et al.) 20 JUNE 2000 (20-06-2000) * Figs. 1, 4, 5 and 8; entire description *	1,2,7,8,11,12,13,18,21
Y	US 6244818 B1 (CHANG, S.) 12 JUNE 2001 (12-06-2001) * Col. 4, lines 30-37, 45-48 and 54-58; Figs. 5A, 5B and 7 *	1,2,5,6,12,13,16,17,23
Y	US 6537019 B1 (DENT, D.E.) 25 MARCH 2003 (25-03-2003) * Abstract; Col. 2, lines 23-25, 61-67 and Col. 5, lines 45-60; Figs. 1-6 *	1-5,12-16,22,23
Y	GB 664011 (MACFARLANE, D.) 2 JANUARY 1952 (02-01-1952) * Page 2, lines 67-71; Figs. 5 and 6 *	3-5,14-16,22

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search
03 March 2005 (03-03-2005)

Date of mailing of the international search report
29 March 2005 (29-03-2005)

Name and mailing address of the ISA/CA
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
Y	US 4007673 (ZALOGA, P. P.) 15 FEBRUARY 1977 (15-02-1977) * Abstract; Col. 5, line 56 - Col. 6, line 14; Figs. 1-5 *	8,9,19
Y	CA 2237559 A1 (PASCH, R. M. et al.) 24 DECEMBER 1998 (24-12-1998) * Col. 3, line 66 - Col. 4, line 4; Fig. 2 *	10,20

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CA2004/001926

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US6076739	20-06-2000	NONE	
US6244818 B1	12-06-2001	JP2000257597 A TW488497Y Y	19-09-2000 21-05-2002
US6537019 B1	25-03-2003	NONE	
GB 664011	02-01-1952	NONE	
US4007673	15-02-1977	NONE	
CA2237559 A1	24-12-1998	US6000684	14-12-1999